



Facility Permit No: SLAS-49-02
Lentz Septic Tank Service, Inc.
Permit to Operate
July 2, 2014
Page 1 of 5

North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

**PERMIT TO OPERATE A SEPTAGE LAND
APPLICATION SITE**


Lentz Septic Tank Service, Inc.
Keith Lentz
418 Lentz Road
Statesville, NC 28625

is hereby permitted to operate Septage Land and Application Site with permit # **SLAS-49-02** located on SR#1852 in Iredell County in approximate position 35.98209° N latitude and -80.84467° E longitude. This site is permitted only for operations that are conducted in accordance with the representations made in the approved application, with all conditions attached to this permit, and with all of the provisions of 15A NCAC 13B.0800 -- Septage Management. Failure to operate as permitted may result in the Department suspending or revoking this permit, initiating action to enjoin the unpermitted operation, imposing administrative penalties, or invoking any other remedy as provided in Chapter 130A, Article 1, Part 2 of the North Carolina General Statutes.

This permit shall be reviewed annually to determine if soil test results and management activities are in compliance with the Septage Management Rules and the conditions of this permit. Modifications, where necessary, shall be made in accordance with rules in effect at the time of review.

Date Issued

7/2/2014


Martin A. Gallagher, Branch Head
Composting & Land Application Branch

CONDITIONS OF OPERATING PERMIT

1. This permit shall become void if the soils fail to adequately assimilate the septage and shall be rescinded unless the site is maintained and operated in a manner which will protect the assigned water quality standards both surface and ground waters.
2. This site shall be operated and maintained in accordance with the nutrient management plan submitted by Keith Lentz and approved by the Division of Waste Management. **The site is divided into three fields known as Field 1 (13.8 acres), Field 2 (18.6 acres) and Field 3 (12.6 acres).** All fields are in an established stand of tall fescue. **The 1.5 acre portion at the front of Field 1 has been removed from the permitted disposal acreage per Keith Lentz.** The mandatory 30-day waiting period between the last application of septage and the harvest of a crop shall be maintained. All discharges shall be at locations on the site consistent with the crop rotation in the approved plan.
3. This site shall be operated and maintained in accordance with the erosion and runoff control plan submitted by Keith Lentz in such a manner as to prevent the migration of wastes off of the designated waste receiving site. Any site improvements noted in the plan must be installed within 30 days of plan approval. The installation of groundwater monitoring wells shall be required as deemed necessary by the Division.
4. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other local, state, and federal government agencies which have jurisdiction. It is the responsibility of the Permittee to be in compliance with the Federal Regulations listed in the Code of Federal Regulations, 40 CFR Part 503.
5. This permit may be modified or reissued at any time to incorporate any conditions, limitations and/or monitoring requirements the Division deems necessary to adequately protect the environment and public health.
6. **This site is only permitted for the land application of domestic septage and grease trap pumpings.** Domestic septage pH shall be raised to 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at 12 or higher for 30 minutes prior to land application. Grease septage or grease septage mixed with domestic septage shall be raised to pH 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at 12 or higher for 2 hours

prior land application. The land application of commercial/industrial septage shall only occur after a waste analysis has been performed and approval has been granted by the Division.

7. **This site contains approximately 45 acres that are available for land application of septage.** The maximum annual application rate shall be 50,000 gallons per acre per year. At this application rate, a maximum annual volume of 2,250,000 gallons may be applied to this site. This application rate assumes equal septage distribution, on an annual basis, over the permitted area. Monthly septage applications shall not exceed the monthly relative application rates given in the approved nutrient management plan for the site. **The wettable acres for the spray irrigation system with a traveling gun is 28.06 acres which is a difference of 16.94 acres in regards to the total permitted disposal area. This 16.94 acres shall be utilized with a pump truck or honey wagon to ensure that the total 45 acres are utilized for the maximum application rate.**
8. An approved above ground septage detention system with a minimum design capacity of 43,269 gallons shall be available prior to operation of this site unless an approved wastewater treatment plant is available for use during periods of adverse weather. The storage capacity may be adjusted if it is demonstrated during the operation of the site that this volume of storage is inappropriate.
9. Only the area designated on the attached site map(s) shall be utilized for septage disposal. Septage shall be distributed at this site from a moving vehicle or a spray irrigation system in such a manner as to have no standing water when the discharge is complete. Applications from a stationary irrigation gun can result in over applications. The traveling speed of the irrigation system is crucial in maintaining agronomic and hydraulic loading rates for the site. A spray irrigation system with a traveling gun should provide a uniform application of septage from the beginning of the field back to the gun cart with no standing liquid. Land application events utilizing irrigation shall be adequately monitored to ensure proper operation of the system and even application of the waste.
10. Septage shall not be applied during any precipitation event, or if there is standing water on the soil surface, if the soil surface is frozen, or if the soil surface is snow covered. The Permittee shall consider pending weather conditions when making the decision to land apply in order to prevent any discharge of septage outside of the permitted boundary.

11. Septage shall not be applied during periods of high soil moisture. Septage applications that will result in ruts greater than three inches in the soil surface are prohibited.
12. Any discharge of septage outside of the permitted boundaries via runoff, aerial drift, etc. is prohibited.
13. This permit shall become voidable unless the land application activities are carried out in accordance with the conditions of this permit and in the manner approved by this Division. No one other than the Permittee or an employee of the firm named in this permit shall discharge septage at this site without prior appropriate notification and written approval from the Division.
14. Prior to any transfer of this land, a notice shall be given to the new owner that gives full details of the materials applied or incorporated at this site. The Division shall be notified prior to site closure. This permit is non-transferable.
15. **This permit shall expire on December 16, 2018.** Modifications, when necessary, shall be made in accordance with the rules in effect at the time of renewal. An application for permit renewal shall be submitted at least ninety (90) days prior to the permit renewal date. A septage application log for the period of time this permit was valid shall be submitted along with an application for permit renewal or modification. The information required in the log is described in Rule 15A NCAC 13B .0838 (e)(1) of the NC Septage Management Rules and the Code of Federal Regulations, 40 CFR Part 503.17 (b).
16. Records shall be kept in accordance with 40 CFR 503.17(b). These records shall be made available to a representative of the Division upon request.
17. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises, or place on or related to the disposal site and facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be kept under the conditions of this permit; or may obtain samples of groundwater, surface water, or leachate.
18. Field separations in the nutrient management plan and all pertinent setbacks shall be clearly located on the site. Boundaries of the permitted septage land application fields shall be clearly marked on the ground.

19. The areas that can be used for land application of septage shall be maintained at least 500 feet from any existing wells, residences, places of business, or places of public assembly. Septage shall not be disposed of within 50 feet of any property line, within 100 feet of any ditch or within 200 feet of any surface water unless specified otherwise.



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

John E. Skvarla, III
Secretary

July 2, 2014

Mr. Keith Lentz
Lentz Septic Tank Service, Inc.
418 Lentz Road
Statesville, NC 28625

**RE: SLAS permit renewal
Lentz Septic Tank Service, Inc.
SLAS-49-02
SR#1852 in Iredell County**

Dear Mr. Lentz:

The NC Division of Waste Management has reviewed your application to renew a Septage Land Application Site permit in Iredell County. Your application has been approved and your permit, # **SLAS-49-02**, is enclosed. If you have any questions about your permit, we'll need the number in order to answer your questions.

Please read all of your permit conditions carefully. Your nutrient management and soil erosion and runoff control plans have been included in your permit's conditions. In particular, review Permit Condition 15, which states that you will need to submit septage application logs for your site in order to renew your permit. These logs need to cover the entire time your current permit is valid. For details on the information you should include, consult the NC Septage Management Rule 15A NCAC 13B .0838(e)(1) and the Federal register's 40CFR Part 503.17(b). This permit condition also states that this permit is valid until **December 16, 2018**. If you have any questions, please ask for assistance as rule violations could expose you to administrative penalties.

Please note that to land apply industrial or commercial septage at a permitted septage disposal site you must have **prior approval** from the NC Division of Waste Management. The waste must be sampled prior to being removed from the system. Generally, the Division will request that you have a waste analysis run on septage from each commercial or industrial septage generator before that type of septage is approved for land application.

Use of a land application site or septage detention or treatment facility that is not permitted may result in administrative penalties up to \$15,000 per violation in accordance with NC General Statute 130A-22.

If you have any questions, please contact me at (910) 433-3352 or Martin Gallagher at (919) 707-8280.

Sincerely,

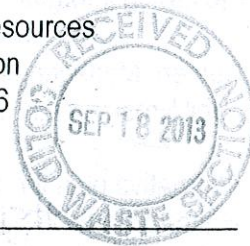
Connie S. Wylie, Soil Scientist
Division of Waste Management, NCDENR

Enclosures

cc: files
Iredell County Health Department

APPLICATION FOR A PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

North Carolina Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center, Raleigh, NC 27699-1646



I. Site and Operator Information

1. Applicant

Address

Phone

Keith V. Lentz

418 Lentz Rd.

Statesville, N.C. 28625

704-876-1834

2. Contact person for site operation (if different from applicant):

Title or position

Address

The Boss

Phone

Keith V. Lentz

704-876-1834

3. Landowner

Address

Keith V. Lentz

403 Lentz Rd.

Statesville, N.C. 28625

4. Site Location:

County Iredell

State Road Number

1852

Directions to site:

I-77 North to Exit 65, then Left on Hwy 901 - 1 mile, then Left on Pioneer Rd to intersection with SR 1852, then Left 1 1/2 miles to site on Left 528 Sloans Rd

5. Indicate whether request is: new _____ renewal ☒ modification _____

For a permit renewal or modification, provide the following information:

Existing site permit number: 49-02

permit expiration date: 12/16/2013

6. Number of acres meeting the requirements of the N.C. Septage Management Rules: 46.6 acres.

7. Substances other than septage or grease trap pumpings previously disposed of on the site:

(a) None ☒, or (b) Attach a list indicating other substances, the amounts discharged, and the dates of discharge.

8. Attach written, notarized landowner authorization to operate a septage disposal site signed by the landowner (if the permit applicant does not own the property). **If a corporation owns the land use a corporate landowner authorization form. If limited liability company owns the land, use a limited liability company landowner authorization form.**

9. Attach site evaluation report, including aerial photograph and soil analysis with metals results, unless the Division prepared the report. On File

10. Attach a vicinity map (county road map showing site location). On File

(over)

II. Site Management Information:

The following information shall be included with the application form:

1. Nutrient Management Plan
2. Soil Erosion and Runoff Control Plan
3. Alternative plan for disposal (detention facility permit number or wastewater treatment plant authorization): #SNTF-49-02 Expires March 14, 2016
4. Types of septage proposed to be discharged at the site (check all that apply):
 - (a) Domestic septage pumped from septic tanks ☒
 - (b) Grease trap pumpings ☒
 - (c) Portable toilet waste ☐
 - (d) Commercial / Industrial septage ☐
5. Proposed treatment method of each type of septage to be land applied (use additional paper to explain if necessary): Hydrated lime in slurry to be mixed with septage or grease septage to achieve a pH of 12 or more for 30 minutes for septage + 2 hours for grease + septage mixed grease no more than 1 to 1 ratio with septage. Mixing lime & waste will be done with aeration.
6. Proposed method of applying septage to land, including septage distribution plan if required * (use additional paper to explain if necessary): Spreading from moving truck, out of rear of truck using spreader splash plate for a width of 20'. When ground will hold up a truck without rutting field. In addition on additional paper ->
7. Demonstration from the appropriate state or federal government agency that the land application site complies with the Endangered Species Law ** or if any part of the site specified is not agricultural land (use additional paper to explain if necessary): All Agriculture

III. Certification

I hereby certify that:

1. The information provided on this application is true, complete, and correct to the best of my knowledge.
2. I have read and understand the N.C. Septage Management Rules, and
3. I am aware of the potential consequences, including penalties and permit revocation, for failing to follow all applicable rules and the conditions of a Septage Land Application Site permit.

Keith V. Leatz
Signature***

09/09/2013
Date

Keith V. Leatz
Print name

Vice Pres.
Title

Note: This application will not be reviewed until all parts of the application are complete.

* Refer to Section .0837(e) of the N.C. Septage Management Rules.

** Refer to Section .0837(g) of the N.C. Septage Management Rules.

***Signature of company official required.

II Site Management Information

6. Will use irrigation pump - tractor pulled, + irrigation reel to land apply septage + grease septage from storage tanks especially during times when ground won't support truck traffic. Will still abide by nutrient management plan for monthly rates for crop.

Included with this is specification sheet, drawing + design of wettable acreage with traveling gun + flow calculations.

Keith V. Lamb
2-26-2014

Attached sheets also

RECEIVED
JUL 22 2014

Landowner's Authorization to Operate a Septage Land Application Site

DIVISION OF WASTE MANAGEMENT
FAYETTEVILLE REGIONAL OFFICE

North Carolina Department of Environment and Natural Resources
Division of Waste Management - Solid Waste Section
1646 Mail Service Center, Raleigh, NC 27699-1646

RECEIVED
JUL 14 2014
SOLID WASTE SECTION

I, Keith Lentz + Teresa Lentz (name of site owner) hereby certify that I am the owner of

87.405 acres of land located Union Grove

and identified by 877/574 (book and page of recorded deed

or tax map parcel) and that I agree to allow Keith Lentz or Jason Lentz (name of site

operator) to use said land for septage land application for a period of 5 years (length

of time), beginning 12-16-2013 (month, day and year) and that I have read the

North Carolina Septage Management Rules *, and I understand and agree to maintain the restrictions on

land use after septage land application ends **. I further understand that no septage may be land applied

until the Division of Waste Management has issued a permit for a septage land application site. The above

described property is owned solely by me or jointly with _____

Teresa D. Lentz (names of all co-owners, or state none).

* Signature of landowner Keith V. Lentz Date 7-7-14

* Signature of landowner Teresa D. Lentz Date 7-7-14

Sworn to and subscribed before me this 7th day of July, 2014.

Nichole C. Lentz
(Notary Public)

My Commission expires: Sept. 14th 2016

(OFFICIAL SEAL)

* 15A N.C. Admin. Code 13B Section .0800

** As required by Rule .0843

Nichole C. Lentz
Notary Public
Iredell County
North Carolina
My Commission Expires 9-14-16

SEPTAGE DISPOSAL SITE #49-02
Sloan's Mill Road, Iredell County
September 12, 2013

NUTRIENT MANAGEMENT PLAN FOR
SEPTAGE APPLICATIONS TO TALL FESCUE

A. General Information

1. Periodic sampling (at least 2/year) of the septage will be conducted for waste analysis. Annual soil test of each field will be conducted and used in determination of application rates.
2. Field #1 contains approximately 13.83 acres, Field #2 contains approximately 18.6 acres and Field #3 contains approximately 12.7 acres.
3. The dominant soil at this site is Loyd Cecil.
4. Septage will not be applied when the site is untrafficable for truck application and/or there is standing water on the application site if applying septage by irrigation. (Untrafficable is defined as soil that will allow a loaded truck to leave a depression in sod greater than 3 inches in depth).
5. All nitrogen recommendations for forages are based on the realistic yield expectation.
6. Septage storage shall be provided to account for the average volume of septage pumped per week.

90,000 gallons of above ground storage in place at site #49-02.

- J.L.* B. Crops to be grown: Areas that develop with less than 80% groundcover by fescue will be re-seeded with fescue at a rate of 30 lbs/acre 7 1/2" row drill in September.
All fields and buffers have well established and adequate stand of tall fescue to receive and utilize recommended rates of septage or commercial fertilizer.

C. Nitrogen needs for crops grown:

R.Y.E. = Realistic Yield Expectations

N. Application Rate = Suggested N application rate based on R.Y.E. for soil type.

Crop (cut for hay)	R.Y.E.	N. App.Rate	lbs N/acre
Tall Fescue	4.0 tons/acre x	45 lbs N/Dry ton =	180

GRA-MAC DISTRIBUTING COMPANY

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Complete Irrigation Systems

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(336) 998-3800
Toll Free 1-800-422-3560
Fax (336) 998-3111

2310 NC HWY 801 N
Mocksville NC 27028

Specifications Sheet Keith Lentz

1. Wettable Acres Under Traveler Coverage 28.06 Acres.
2. Traveler is a Ag-Rain E37A w/ 1050' of 3.7" ID PE Hose
3. Traveler gun is a Nelson SR150 gun
4. Gun performance with a 1.43" ring @ 70 PSI is 355 GPM and 365' diameter throw
5. Gun performance with a 1.08" ring @ 70 PSI is 197 GPM and 310' diameter throw (1.08" ring is to be used during low application months)
6. Gun application rate is .40 in/hr w/ 1.43" ring
- only ✓* 7. Gun application rate is .31 in/hr w/ 1.08" ring
8. System pump is a Gorman-Rupp MB4A20-B PTO pump w/ Barracuda Chopper
9. MB4A20-B pump maximums are 150 PSI and 900 GPM.
10. Maximum pressure requirement on site is 145 PSI.

Keith V. Lentz
2-26-14

KEITH LENTZ

Designed by: David Graham

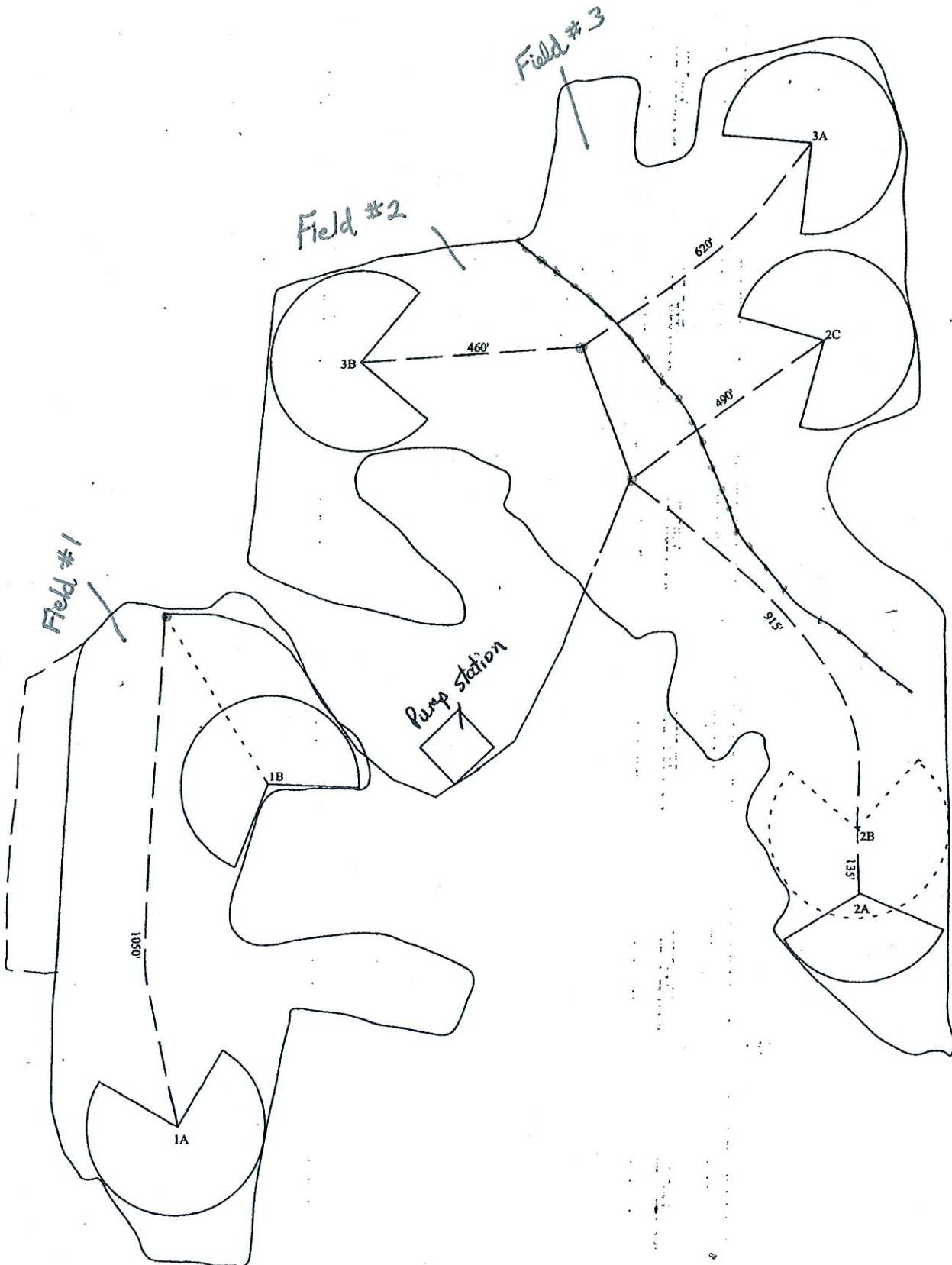
Date: 17 December 2009

Pipe key

- 6" Rainway Ring Lock Aluminum Pipe
- 6" Angus Discharge Hose

Sprinkler / Valve key

- Gorman-Rupp M84A-8 Slurry Pump w/
- o Traveler Location on 6" Aluminum Pipe #1
- Water Supply



PULL APPLICATION INFORMATION HIGH FLOW (15000 GALLONS PER ACRE) (1.43" RING)

<u>PULL</u>	<u>LENGTH</u>	<u>ACRES</u>	<u>GALLONS</u>	<u>SPEED</u>	<u>TIME</u>	<u>GALLONS APPLIED</u>
1A	1050	7.57	113550	3.3 ft/min	318 min.	112890
1B	Stationary	0.7	10500	0	29 min.	10295
2A	135	1.31	19650	2.5 ft/min	54 min.	19170
2B	915	6.33	94950	3.5 ft/min	262 min.	93010
2C	490	4	60000	2.9 ft/min	169 min.	59995
3A	620	4.44	66600	3.4 ft/min	183 min.	64965
3B	460	3.71	55650	3.0 ft/min	154 min.	54670

PULL APPLICATION INFORMATION MEDIUM FLOW (10000 GALLONS PER ACRE) (1.43" RING)

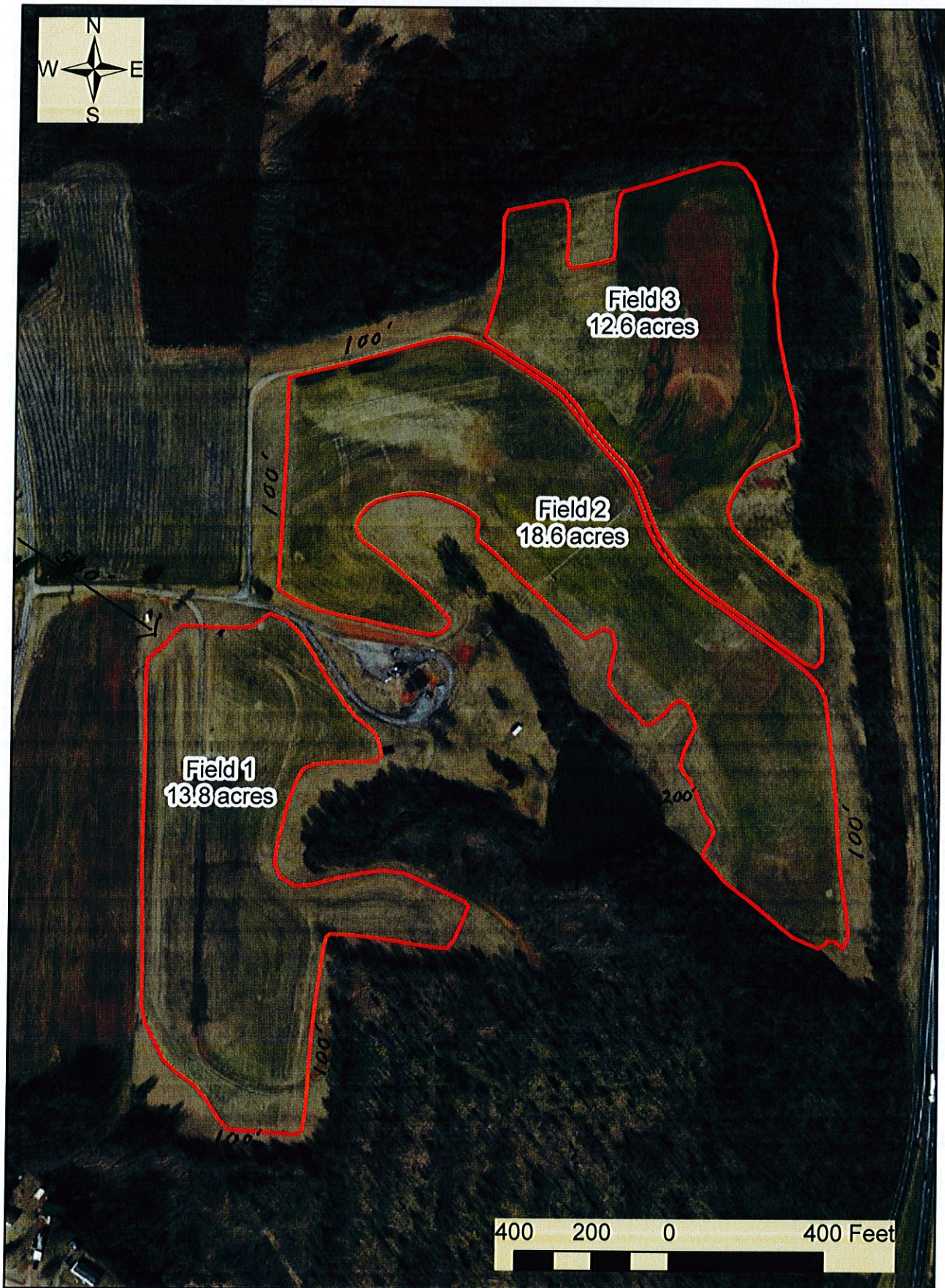
<u>PULL</u>	<u>LENGTH</u>	<u>ACRES</u>	<u>GALLONS</u>	<u>SPEED</u>	<u>TIME</u>	<u>GALLONS APPLIED</u>
1A	1050	7.57	75700	5 ft/min	210 min.	74550
1B	Stationary	0.7	7000	0	19 min.	6745
2A	135	1.31	13100	3.8 ft/min	35 min.	12425
2B	915	6.33	63300	5.2 ft/min	176 min.	62480
2C	490	4	40000	4.4 ft/min	111 min.	39405
3A	620	4.44	44400	5 ft/min	124 min.	44020
3B	460	3.71	37100	4.5 ft/min	102 min.	36210

PULL APPLICATION INFORMATION LOW FLOW (5000 GALLONS PER ACRE) (1.08" RING)

<u>PULL</u>	<u>LENGTH</u>	<u>ACRES</u>	<u>GALLONS</u>	<u>SPEED</u>	<u>TIME</u>	<u>GALLONS APPLIED</u>
1A	1050	7.57	37850	5.5 ft/min	191 min.	37627
1B	Stationary	0.7	3500	0	17 min.	3349
2A	135	1.31	6550	4.1 ft/min	33 min.	6501
2B	915	6.33	31650	5.8 ft/min	158 min.	31126
2C	490	4	20000	4.9 ft/min	100 min.	19700
3A	620	4.44	22200	5.6 ft/min	111 min.	21867
3B	460	3.71	18550	4.9 ft/min	94 min.	18518

SLAS-49-02

35.98209°N latitude
-80.84467°E longitude



Source: Aerial image from Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community. Site boundary from NC DENR Division of Waste Management. Map created by NC DENR Division of Waste Management for permitting purposes only.

crc, June 2014

